

WHAT IS CLAIMED IS:

1           1. A client-server security system comprising:  
2                 a client system receiving first biometric data and having a first level security  
3                 authorization procedure; and  
4                 a server system receiving second biometric data and having a second level  
5                 security authorization procedure;  
6                 wherein the first level security authorization procedure and the second level  
7                 security authorization procedure comprise distinct biometric algorithms.

1           2. The client-server security system of claim 1 wherein the first biometric  
2                 data comprises speech data.

1           3. The client-server security system of claim 2 wherein the speech data  
2                 comprises to a password.

1           4. The client-server security system of claim 1 wherein the second  
2                 biometric data comprises speech data.

1           5. The client-server security system of claim 1 wherein the first level of  
2                 security authorization comprises user verification.

1           6. The client-server security system of claim 1 wherein the second level  
2                 of security authorization comprises user identification.

1           7. The client-server security system of claim 1 wherein the first level of  
2                 security authorization comprises a neural network.

1           8. The client-server security system of claim 1 wherein the second level  
2                 of security authorization comprises Hidden Markov Models.

1           9. A method of performing a secured transaction on a server system  
2                 comprising:  
3                 receiving a first level security authorization signal on the server system from a  
4                 client system;  
5                 receiving biometric data on the server system from the client system;

6 executing a second level security authorization, the second level security  
7 authorization including analyzing the biometric data using a first biometric algorithm on the  
8 server system; and

9 generating a second level security authorization signal on the server system  
10 when the first biometric algorithm indicates that the biometric data corresponds to one of a  
11 plurality of users authorized to access the server system.

1 10. The method of claim 9 wherein the first level security authorization  
2 signal indicates that a user has been authorized on the client system by a second biometric  
3 algorithm on the client system.

1 11. The method of claim 9 wherein the first level security authorization  
2 signal indicates that a user has not been authorized on a client system by a second biometric  
3 algorithm on the client system.

1 12. The method of claim 9 further comprising re-executing the second  
2 level security authorization on the server system.

1 13. The method of claim 9 further comprising receiving control  
2 information from the client system.

1 14. The method of claim 13 wherein the control information comprises a  
2 verification confidence value.

1 15. The method of claim 14 further comprising modifying an acceptance  
2 threshold of the first biometric algorithm in accordance with the verification confidence  
3 value.

1 16. The method of claim 14 further comprising analyzing second biometric  
2 data using the first biometric algorithm when the verification confidence value within a first  
3 range.

1 17. The method of claim 14 further comprising prompting the user for  
2 additional biometric information when the verification confidence value is within a first  
3 range.

1           18.     The method of claim 13 wherein the control information comprises a  
2 authorization limitation criteria.

1           19.     The method of claim 18 further comprising restricting access to remote  
2 resources in accordance with the authorization limitation criteria.

1           20.     The method of claim 18 further comprising limiting allowable  
2 spending amounts in accordance with the authorization limitation criteria.

1           21.     The method of claim 18 further comprising limiting allowable network  
2 connection time in accordance with the authorization limitation criteria.

1           22.     The method of claim 9 further comprising providing access to a  
2 plurality of server resources in accordance with the first and second level authorization  
3 signals.

1           23.     The method of claim 9 further comprising providing access to a  
2 plurality of remote network resources in accordance with the first and second level  
3 authorization signals.

1           24.     The method of claim 9 further comprising executing an identification  
2 script to obtain identification information about the user.

1           25.     The method of claim 9 further comprising retrieving biometric data  
2 from the client and storing the biometric data on the server for later identification of the user.

1           26.     The method of claim 25 wherein the biometric data is a digital  
2 fingerprint.

1           27.     The method of claim 25 wherein the biometric data is a digital voice  
2 print.

1           28.     The method of claim 9 further comprising receiving a line quality  
2 measure in the server system, and in accordance therewith, selecting one of a plurality of  
3 server biometric algorithms for executing the second level security authorization.

1           29.     The method of claim 9 further comprising receiving a line quality  
2 measure in the server system, and in accordance therewith, loading the first biometric

3 algorithm with a first input parameter value when the line quality measure is in a first range,  
4 and loading the first biometric algorithm with a second input parameter value when the line  
5 quality measure is in a second range.

1               30.     The method of claim 9 further comprising receiving a channel type  
2 signal in the server system, and in accordance therewith, loading the first biometric algorithm  
3 with a first input parameter value when the channel type has a first value, and loading the first  
4 biometric algorithm with a second input parameter value when the channel type has a second  
5 value.

1               31.     A method of performing a secured transaction on a client system  
2 comprising:

3               receiving biometric data in the client system;  
4               analyzing a first portion of the biometric data using a first biometric algorithm  
5 on the client system;

6               generating a first level security authorization signal on the client system when  
7 the first biometric algorithm indicates that the first portion of the biometric data corresponds  
8 to an authorized user;

9               transmitting the first level security authorization signal and second portion of  
10 the biometric data to a server system, the second portion of biometric being analyzed by a  
11 second biometric algorithm on the server; and

12               accessing resources on the server system through the client system when the  
13 second biometric algorithm provides a second level security authorization.

1               32.     The method of claim 31 further comprising generating a verification  
2 confidence value and transmitting the verification confidence level to the server system.

1               33.     The method of claim 32 further comprising modifying an acceptance  
2 threshold of the second biometric algorithm in accordance with the verification confidence  
3 value.

1               34.     The method of claim 32 further comprising transmitting second  
2 biometric data to the server system and analyzing the second biometric data using the second  
3 biometric algorithm when the verification confidence value is within a first range.

1               35.     The method of claim 31 further comprising generating authorization  
2 limitation criteria and transmitting the authorization limitation criteria to the server system.

1               36.     The method of claim 35 wherein the authorization limitation criteria  
2 comprises remote resource access restrictions.

1               37.     The method of claim 35 wherein the authorization limitation criteria  
2 comprises spending amount limitations.

1               38.     The method of claim 31 wherein the first portion of the biometric data  
2 is speech data and the first biometric algorithm is a speaker recognition algorithm.

1               39.     The method of claim 38 wherein the speech data comprises a  
2 password.

1               40.     The method of claim 31 wherein the second portion of the biometric  
2 data is speech data and the second biometric algorithm is a speaker recognition algorithm.

1               41.     The method of claim 40 wherein the speech data comprises an  
2 utterance.

1               42.     The method of claim 31 wherein client system is a portable media  
2 player.

1               43.     The method of claim 31 wherein client system is a smart card.